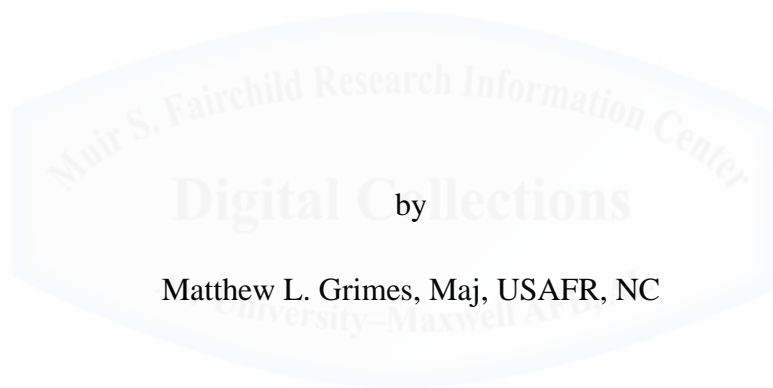


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**THE U.S. AIR FORCE AEROMEDICAL EVACUATION MISSION:
A MISSION FOR THE AIR RESERVE COMPONENTS?**



by

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A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

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February 2016

Disclaimer

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ACKNOWLEDGEMENTS

I would like to thank my research advisor, Dr. Fred Stone, for his guidance, suggestions, patience, and encouragement. This was a daunting task made easier with his assistance and positive attitude.

I would also like to thank Col Thomas Hansen of the 36th AES, Lt Col Russel Frantz of the 43rd AES, Lt Col Sue Behrens of the 109th AES, Lt Col Bonnie Bosler of the 934th AES, and Lt Col Kim MacPherson of the 34th AES. They were valuable resources who were willing to take time out of their busy days to come to my assistance. They answered my questions, no matter how abstract, and they gave me a new understanding of AE. My love of this mission was renewed by the amount of dedication and passion for AE that they exhibited. And a special thanks to Lt Col Jill Cudnoski, who helped in the final proof-readings, when I had lost all objectivity.

Most important, I would like to thank my wife and daughter for the amount of time they allowed me to spend on the colossal undertaking of completing the ASCS On-Line Master's Program, of which, this paper is the final culmination. Thank you to my wife, for reading my numerous papers over the past two years, even though it had to have been boring and painful, and thank you to my daughter, for understanding when my attention was elsewhere and my time was being spent on this enterprise. You are always my biggest cheerleaders and my greatest supporters. I cannot thank you enough.

ABSTRACT

A 2014 report by the National Commission on the Structure of the Air Force recommended the Air Force increase its use of the Air Reserve Component (ARC) and transfer as many missions as possible to its reserve components. This research evaluated whether the US Air Force should, or even could, entrust the entire Aeromedical Evacuation mission to the ARC. The concept of moving the AE mission to the ARC was examined using three criteria: financial implications, effects on recruitment and retention, and the effects on mission readiness. The financial impacts and effects on recruitment and retention seemed to be mostly off-setting, with positive and negative aspects present for both of these criteria. The effects of this move on mission readiness, however, were deemed too significant to make this a viable plan. While the ARC performs a significant amount of the AE mission and brings unique advantages, like long-term experience and strong clinical backgrounds, the AC also provides unique advantages, including the ability to maintain a higher level of readiness. The AE enterprise needs both Active and Reserve components in order to be effective and ready.

Introduction

The citizen-soldier concept is an American tradition that pre-dates the United States of America. It was a remnant of the English militia tradition employed by the settlers as a means to defend themselves against multiple threats in a new and violent frontier.¹ These militias were used to augment General George Washington's Continental Army in the Revolutionary War, as well as to provide law and order among the Colonial States. The forefathers of the United States envisioned a country with only a small standing army and strong, capable state militias able to stand up quickly and supplement the army when called. This idea was so important that they placed provisions for the militias in the Constitution of the United States. The argument for a small standing army supplemented by a large militia is a recurring theme in the history of the United States, and it often follows major conflicts.

The United States is currently at another post-conflict decision point, where the questions of standing force, reserve force, and national security are again being debated. In a 2014 report, the National Commission on the Structure of the Air Force recommended to the US Congress that the Air Force "entrust as many missions as possible to its Reserve Component forces."² While the Air Reserve Component (ARC) is a part of every major mission in the Air Force, there are certain missions that are more appropriate for ARC ownership. Currently, the ARC owns the Weather Reconnaissance, Aerial Spraying, and Wildland Firefighting missions.³ In addition, the Air National Guard (ANG) is constitutionally tasked with the mission of homeland security and protection, as well as maintaining order within the states and providing assistance in times of domestic disaster.⁴

Another possible mission for ARC ownership is Aeromedical Evacuation (AE). The US Air Force's (USAF's) AE mission is one of its Air Mobility Operations. AE ensures the safe and timely movement of patients all over the world, from one echelon of care to another, via fixed wing aircraft.⁵ The AE mission differs significantly from the strictly homeland missions of Wildland Firefighting and Weather Reconnaissance. AE possesses a homeland component in transporting ill and wounded personnel back to their home-stations throughout the United States and providing humanitarian assistance during natural disasters, such as Hurricanes Katrina and Ike. It is also responsible for the movement of ill and wounded military personnel, dependents, civilian contractors and Department of Defense and State Department civilians anywhere in the world. AE also has a robust war-time mission, as it is tasked with establishing and providing initial contingency and war-time evacuation operations. These diverse mission sub-sets create certain requirements that the ARC is uniquely qualified to provide, like a strong clinical background, long-term experience, and the manpower depth to provide surge and sustainment capabilities.

Through the use of the evaluation framework, the transfer of the AE mission, as a whole, to the ARC, will be examined using the following three evaluation criteria: financial implications, recruitment and retention, and mission readiness. The focus of this research is to determine if this concept is even feasible, and, if it is, would it be a preferable alignment for the AE mission.

This paper is divided into the following parts: Background, Methodology, Evaluation and Analysis, and Recommendations. The Background will provide a brief synopsis of the ARC and the AE mission. It will also discuss some of the difficulties the current system is causing within AE, as well as a review of current literature regarding the use of the reserve components.

Methodology will discuss how the evaluation framework is being applied to the concept of transferring the AE mission to the ARC. This will include a discussion of the three criteria being used for evaluation. The Evaluation and Analysis section will apply the three criteria to the proposal. Finally, in Recommendations, the results and implications of this possible mission transfer will be discussed, and final recommendations will be provided.

Background

To truly understand the role of the ARC in AE, it is important to know the background of the ARC and the forces that have brought it to where it is today. The ARC is no longer the strategic force that it once was, to be utilized only in all-out war; it is now an operational reserve that is called on every day to perform every mission in the USAF's inventory. There have been various forces that have brought it to this point, including numerous pieces of legislation and complete changes in the doctrine of what the reserve component should be.

History of the ARC

Each branch of the US military consists of an Active Component and a Reserve Component. In the US Air Force, the ARC consists of the Air National Guard and the US Air Force Reserve. The Air National Guard is a direct descendent of the US militia heritage, tracing its origins all the way back to the state militias and volunteers. The AF Reserves are a federal military reserve, meaning that, unlike the National Guard, who belong to their respective states, they belong to the Air Force and the federal government. While the two forces are often mistaken for each other, or considered interchangeable, they are quite different, with the only

true similarities being that they are made up of citizen-soldiers who are required to train one weekend a month and 15 additional days a year.

One of the most significant differences between the two is that the Air National Guard is a state owned asset, with its foundations rooted in the Constitution of the United States. While still a state asset, the Militia Act of 1903 and the subsequent National Defense Act of 1916 designated the National Guard as the primary reserve force of the US military.⁶

The Air Force Reserves dates back to the National Defense Act of 1916 which created the Organized Reserve Corps.⁷ This federal reserve force was frequently the beneficiary of war time largess and the victim of peace time cuts; more so than the National Guard, because the Air National Guard was a state militia, with constitutional authority, and a mandated federal mission as the primary reserve force. In the words of Major General Earle E. Patridge, “The Air Reserve is a stew-pot, composed of leftovers not included in either the Regulars or the Air National Guard.”⁸

The debate over the role of the citizen soldier in the US military goes all the way back to the foundation of the United States. The founding fathers, afraid of the tyranny of a large Federal government, preferred the idea of state militias, as opposed to a large standing army. This initial effort to exist with only a nominal standing army was unsuccessful, due in large part to the vastness of the young country and the numerous threats it faced.⁹ The frontier was too large to be protected by militiamen who could not be away from home for more than a few months at a time. In addition, foreign aggression continued to be a persistent reality, so the standing army was not only a necessity, but also required significant increases. Meanwhile, the militias, due to a lack of funding and the need for a robust standing army were relegated to a

diminished status. By the mid-Nineteenth Century the majority of state militias “fell into disuse” and were woefully unprepared for any type of conflict.¹⁰

From the Mexican-American War and the Civil War in the 19th Century, to the trenches of World War I and the battlefields of World War II in the 20th Century, in all major conflicts where the states were called on to provide citizen soldiers, there was often substantial delay in their mobilization and they required significant effort to become war ready and capable fighters.¹¹ Once the battle was joined, and these citizen-soldiers were bloodied, they were able to perform alongside their regular brethren. After most conflicts, however, there would be a repeated pattern of significant drawdowns in the standing military in favor of the militias, and promises of a robust militia that would be well trained and equipped and available if the need arose. Unfortunately, history has shown this to be untrue, and often the militias are allowed to fall back into a state of disuse and unpreparedness, causing the same delay and effort before the force can be effectively utilized.¹²

Total Force Integration

Following Vietnam a new version of this same concept emerged. It was called Total Force Integration (TFI), and it stressed making the reserve components as similar to the active duty components as possible, and integrating the two components into one seamless force. This initiative was not only driven by the desire to have a fully functional military reserve. It also had roots in the divisive politics of post-Vietnam. To go to war under the TFI, the country would have to mobilize both components, reserve and active, which would require the support of the American people before American troops could be employed in combat. This came to be known as the Abrams Doctrine.¹³

Operations DESERT SHIELD/DESERT STORM (ODS/DS) provided the first test of the TFI initiatives, and it demonstrated that not all of the services were equal. While the Army had difficulty mobilizing and deploying, with average mobilization time ranging from 50-110 days, the ARC did not suffer the same difficulties, with mobilization times ranging from 72 hours to 10 days.¹⁴ The Air Force implemented a more complete integration of its ARC, and the ARC was held to the same readiness requirements as the Active Component (AC).¹⁵ In support of ODS/DS, "All mobilized ARC flying units mobilized in 24 hours or less, and were prepared to deploy or did deploy in less than 72 hours."¹⁶

While not all of the services' reserve components fared as well as the ARC, the Guard and Reserves did manage to constitute a large portion of the ODS/DS force, with more than 110,000 members deployed to the Gulf, compared to 500,000 active duty members.¹⁷

Following September 11, 2001, the role of the reserve components changed. Previously, the vision for the reserve components had always been a force able to supplement the AC when required, a strategic force held in reserve, to be deployed only when the AC could no longer hold the line. Post-9/11, the role of the reserve components changed to more of an operational reserve, as they became an integrated and integral part of the United States' military force. As of 2007, the reserve components (Army, Navy, Air Force, Marine, and Coast Guard) constituted more than 457,000 members of the forces deployed to Iraq and Afghanistan.¹⁸ When compared to the roughly 1.2 million AC personnel deployed to these regions, the reserve components made up 28% of the US military's deployed force for Operations IRAQI FREEDOM and ENDURING FREEDOM.

As Operations IRAQI FREEDOM, ENDURING FREEDOM, and NEW DAWN come to a close, the United States is, once again, faced with the question of what to do with a large operational military in a post-conflict world, and the idea of a robust and effective militia in place of a large standing military has, again, come to the forefront. In a 2014 report, the National Commission on the Structure of the Air Force recommended that the Air Force “entrust as many missions as possible to its Reserve Component forces.”¹⁹ The idea behind this recommendation was to keep the ARC engaged, in an effort to avoid the subsequent lapse in readiness that usually follows a post-conflict stand-down.

Aeromedical Evacuation

One of the potential missions for ARC ownership is the USAF’s AE mission. USAF AE provides for the regulated movement of validated patients via opportune, fixed wing aircraft. The AE enterprise consists of AE crews, Operations Teams (AEOT), Liaison Teams (AELT), and control elements. A typical AE crew consists of 2 Flight Nurses (FNs) and 3 Aeromedical Evacuation Technicians (AETs) and they are managed and supported by an AEOT. AE differs from the US Army’s Med Evac mission in two ways: regulation and validation. Aeromedical Evacuation moves only patients currently residing in a Medical Treatment Facility that have been validated as safe for flight by a qualified Flight Surgeon, in movements that are regulated through a Patient Movement Regulation Center (PMRC). Med Evac, on the other hand, is the unregulated, rapid movement of a non-validated patient, often from the point of injury, to the most readily available and appropriate point of care. In most instances, Med Evac is accomplished via rotary wing aircraft and moves 1-4 patients, where AE uses only fixed wing aircraft and can move patient loads ranging from one litter patient up to 92 litter patients depending upon aircraft and configuration.

Currently, the majority of the USAF's AE assets belong to the ARC. With nine AE squadrons in the Air National Guard (ANG) and 18 in the Air Force Reserve Command (AFRC), the ARC "account(s) for 70 percent of AE forces supporting the AE system."²⁰ The ARC brings distinctive advantages to the AE mission including strong civilian clinical backgrounds among its nurse corps and a long-term experience with the mission.

The Current Problem

One of the most often cited difficulties when interviewing AE squadron commanders is money, or a lack thereof. The Budget Control Act of 2011, which reduced defense spending by \$487 billion dollars, is one example of recent US military budget cuts.²¹ This same bill also enacted the sequestration cuts that followed and have led to a decrease in military spending by a "cumulative 15%" since 2011.²² William Galston, a Senior Fellow at the Brookings Institute, wrote in 2014, "Over the next decade, the United States is on course to reduce its defense expenditures to just 2.6 percent of GDP, the lowest share since the end of World War II."²³ While the 2016 National Defense Authorization Act offered some hope for a stable funding stream, its veto, and subsequent delay of fiscal year funding, led to more financial chaos throughout the ARC. New bipartisan legislation to fund the US military is working its way through Washington, but it still "falls about \$5 billion short of" what military planners had hoped for.²⁴

Political stalemates and failures to pass budgets in Congress have cost members of the ARC, as well as the other service's reserve components, valuable training. In 2013, a federal government shutdown caused the cancellation of Unit Training Assemblies (UTAs) in the reserve components for October. It also caused the cancellation of orders to formal schools and

funding for other training, including readiness exercises and training flights, elements required to maintain mission readiness.²⁵ The failure of the 2016 National Defense Authorization Act again led to the cancellation of UTAs and training opportunities.²⁶ AE is dependent upon every single UTA and every single hour of flight time to meet the multiple proscribed training requirements and maintain the high level of mission readiness the AF requires. The cancelled UTAs and training flights that accompanied budget difficulties in 2013 and 2015 left many ARC AE squadrons with non-mission ready crews and many ARC commanders struggling to barely meet mission requirements.²⁷

Another issue causing difficulty in AE is the lack of operational opportunities. This is a result of the force drawdowns as the US military disengages itself from its multiple combat operations around the world. While this is good for the war-fighter, it can cause a loss of skill and readiness in an AE squadron. Decreased operations world-wide have meant decreased AE deployments. At the height of OIF/OEF, AE had seven active deployed locations in direct support of the two operations, with a five to ten person AE Operations Team (AEOT) and three to five crews at each location. Currently, there are three deployed AE locations in support of Operations INHERENT RESOLVE and FREEDOM'S SENTINEL each with an AEOT and three to four crews. This represents a significant reduction in taskings, and has led to a competition among the AC and ARC squadrons for deployment opportunities. The AC AE squadrons rely on operational AE missions as a means to maintain clinical skills.²⁸ Operational experience allows ARC members the chance to see what the mission really looks like and how it flows. Simulations and training are adequate means of preparing someone to perform their mission on a rudimentary basis, but the AE mission, with its combination of operational knowledge and clinical skill, is such that it cannot be adequately simulated, recreated, or

demonstrated via PowerPoint beyond the basics. In the words of one AE squadron commander, “simulated training has its place, but it can never replace the real thing.”²⁹

A third conflict within the AE system is a product of decreased budget, as well as competition for control within the enterprise. In 2010, the AFRC stood up the first AE Formal Training Unit (FTU).³⁰ Its purpose was to conduct the initial qualification of FNs and AETs. Prior to the FTU, this qualification was completed at the FN’s or AET’s home squadron and was done with varying degrees of efficiency and success.³¹ AFRC placed the FTU at Pope Army Airfield in North Carolina, home of the 440th Air Wing, already a product of Total Force Integration with ARC and AC associations present. The 440th AW provided a pool of instructors and examiners from both the Active Duty and the Reserve Command. In addition, AFRC solicited instructors and evaluators from the entire AE enterprise, including the AC and ANG Bureau. Students came from both the AC and ARC as well. The FTU provided a standardized curriculum and was able to produce a Basic Qualified AET of FN in 25 days.³² Three years after AFRC stood up its FTU, the AC stood up its own, separate, AE Initial Qualification (AEIQ) program at Wright-Patterson AFB in Ohio, home of the recently re-located USAF School of Aerospace Medicine (USAFSAM). The establishment of a second, separate initial qualification school created a competition for resources, to include, money, students, and training flights. It also created a system where AC instructors and examiners were used to the exclusion of ARC instructors and examiners, taking away a valuable learning platform for ARC instructors and examiners. What had started out as a Total Force Initiative soon became, solely an AC function.

Budgets cuts and mission reductions have left the AE enterprise facing challenges in a post war era. The AE system that was once flush with money and missions is now struggling to maintain readiness. The current war-time, high-operations tempo AE system is faced with a new

post-conflict, mission draw-down reality. The possibility that the AE mission is not big enough for the existing enterprise must be considered.

Previous Research

A review of literature focused on some of the inherent differences between the ARC and the AC, differences that could be leveraged to make certain missions more appropriate for one component over the other. Previous research that discussed the advantages and disadvantages of utilizing the ARC as an operational reserve, as well as research into recruitment and retention for the ARC was also reviewed.

One area of previous research focused on the clinical experience and background among the AC Nurse Corps (NC). Lt Col Leslie Claravall identified a lack of clinical experience among the AC NC, a deficiency she attributed to the lack of “inpatient platforms” in the Air Force.³³ This was a sentiment repeated by every AE commander, chief nurse, and director of operations interviewed and it is now exacerbated by the removal of the previous requirement of at least one tour of in-patient emergency or intensive care unit experience. In contrast, multiple ARC AE commanders continue to require current in-patient experience, and Air Force Instruction 46-101, Nursing Services and Operations, mandates a minimum of 180 hours per year of clinical experience, a requirement that does not exist for the AC Nurse Corps.

Another area that has received considerable attention was the financial differences between the ARC and the AC. Craig Harvey and Charles Ryan’s research considered the socio-economic impacts of reserve force mobilization in a cost-factor analysis.³⁴ Harvey and Ryan determined that the use of the ARC comes at a significantly greater cost than the use of the AC when the socio-economic impact is factored in. This includes effects like increased PTSD

among the general population and small business failures due to the absence of RC members.³⁵ Harvey and Ryan also argued that the use of the reserve component is akin to the use of conscription in its effects on society.³⁶ While Harvey and Ryan's research provided new insight into the deeper socio-economic effects of deployment of the ARC on the economy, they failed to discuss the possible benefits of engaging the ARC, like the connection between the average citizen and the US military the ARC provides.

Lt Cols Luke Ahmann and Liesl Carter's paper, "Total Force Optimization," provides a counter-argument to Harvey and Ryan's economic research through a macro analysis cost comparison between the AC and ARC.³⁷ Their research helped establish cost differences between reserve and active components and supported the argument that the ARC is a cheaper labor force, which they believed could free up Air Force money for force modernization, as well as provide a cost-effective way to increase end-strengths to meet future operational requirements.³⁸ This argument is significant in the effort to make the ARC a mission stakeholder given the current budgetary conditions.

Maj Dennis Duffy's, "The Past, Present, and Future of the Air Force's Future Total Force" contended that an over-dependence on the ARC could have disastrous effects on recruitment and retention among reservists. However, the Institute for Defense Analysis (IDA) performed significant quantitative research into the question of recruitment and retention rates among ARC personnel and showed that, while recruitment for the ARC will see a statistical decrease if ARC deployments and taskings increase, overall numbers will increase through the recruitment and increased retention of "high-taste" individuals.³⁹ The IDA's research helps demonstrate the need for increased utilization of the ARC in order to recruit and retain the types of personalities the Air Force AE mission requires.

The evaluation of a mission for ARC ownership has the potential to encourage a new Total Force paradigm; one of delineation and separate missions as opposed to integration. By delineating certain missions as ARC missions, and others as AC missions, the Air Force can leverage the differences inherent in the two components to create a stronger, more capable Air Force. It is driven by the 2014 congressional report, “National Commission on the Structure of the Air Force: Report to the President and Congress of the United States”, that recommends that as many missions as possibly be transferred to the ARC.⁴⁰ The commission believes that this is not only a cost-saving move, but a move that could keep the ARC relevant and ready through continued operational engagement.⁴¹

While my research found that clinical skills are lacking in the AC, and the cost of a traditional ARC member is significantly lower than an AC member, mission readiness is a factor that cannot be ignored, and it is impaired in the ARC due to funding, but also because of the unique nature of the typical Guardsman and Reservist.

Methodology

This research will use the evaluation framework to examine the possibility of moving the AE mission entirely to the Reserve Component. Through the application of three criteria: financial implications, recruitment and retention, and mission readiness, the effects of the wholesale move of the AE mission to the ARC will be evaluated.

With the current budgetary conditions, the financial implications of moving a mission to the ARC must be considered. While the costs of flying hours in the ARC versus flying hours in the AC has been readily researched, the other financial implications are often either overlooked

or difficult to ascertain, but must be considered. These include costs not only associated with maintaining flying requirements, but also maintaining readiness, maintaining medical skills, and manning full-time positions currently held by AC members.

The next criterion, Recruitment and Retention, is important because of the unique nature of the citizen-Airman. Members of the ARC are not members of the Active Component. Their reasons for becoming citizen-Airmen versus active duty Airmen are varied, but they must be considered. Before subjecting the ARC to any increased pressure, the potential effects on the membership of the ARC need to be understood. The potential effects of the move of AE entirely to the ARC on recruitment and retention must be evaluated with this understanding in mind.

The final, and perhaps most important criterion, is the effect of this move on mission readiness. The AE mission is first and foremost a matter of life and death. When the mission is effective, lives are saved. When the mission fails, lives are lost or disabilities incurred. For that reason, the effects of this transfer on mission readiness must be evaluated. Mission readiness is reflected most often in the Status of Resources and Training Systems (SORTS) Report. Unfortunately, SORTS is considered sensitive information and not for general disclosure, but other measures of readiness can be considered, and are often more difficult to manipulate into a false picture of readiness. One of the most important, given the over-all responsibility of the National Guard, is the effect of any changes on the ability of the ARC to provide domestic support and relief. Other readiness considerations include the ability to fill required taskings, the ability to complete upgrade training, and the ability to maintain required certifications, qualifications, currencies, and skills. All of these items are required to not only make the AE member ready but also capable and effective.

Evaluation

The results of the evaluation are listed below and broken up into the three criteria: financial implications, recruitment and retention, and readiness.

Financial Implications

Transitioning AE to the ARC has several financial advantages for the Air Force. It might seem an obvious conclusion that the reserve component would be significantly cheaper than the active component. First, the reservist is only paid when they are actually performing work or training, while an active duty member earns a salary, to include nonproductive time like leave and sick days, and comes with other associated costs such as subsistence and housing allowances, childcare and DoD school funding, healthcare, social services and programs, and retirement.⁴² The National Commission on the Structure of the Air Force listed other factors that would support the ARC's cost-effectiveness, including the fact that the ARC airman often comes with training and experience garnered from time in the AC, requiring less time and money to become mission ready. Another cost saving advantage of the ARC is the civilian experience of its members. This is especially true in the medical field, where civilian jobs provide a means to maintain military skills.⁴³ Other cost-saving benefits of the ARC include decreased compensation and retirement costs and the use of sustainment training versus the continuous need for initial training because of the ARC members' ability to stay in a career field longer. Considering all of these factors, the commission "determined that the cost of a traditional reservist, who is not performing active duty missions during a year, is approximately 1/6th the cost of a full-time Active Component Airman."⁴⁴ Ahmann and Carter also demonstrated the cost savings of ARC utilization using the Military Personnel (MILPERS) budget. Using a macro-

economic view of personnel costs, they determined that 83% of the MILPERS budget went to support the 65% of the military personnel made up of Air Force AC members, while the RC requires 17% of the MILPERS budget to sustain the 35% of the Air Force that is the ARC.⁴⁵

With the decreased operations tempo and current surplus AE capacity, the 27 AE squadrons of the Reserve Component could cover the functions of the four AC AE squadrons. This assumption is based on two facts: 70% of AE is accomplished by the ARC,⁴⁶ and the ARC comprises 87% of the AE force structure.⁴⁷ By dissolving the four AC AE squadrons, significant savings would be realized. In addition, by moving AE to the relatively cheaper labor force of the ARC, more AE capacity could be purchased with less defense budget, providing increased operational capacity, an argument supported by Ahmann and Carter's research.⁴⁸

There are significant financial disadvantages to the potential dissolution of the AC AE. Currently, three of the AC squadrons provide AE coverage for the European, African, and Pacific Theaters, as well as Central and South America, and portions of North America. These are locations that require full-time coverage, and would need to be covered by the ARC AE. While these taskings would not require a full-size AE squadron like the AC provides now, they do represent an additional full-time manning requirement. There would also be an increase in deployments if the AC were removed from AE. Currently, there are several AC AE assets deployed in support of US operations. These deployments would have to be covered by the ARC. This increase in deployed ARC personnel negates some of the cost-savings of an all-ARC AE, as a deployed ARC member receives the same pay and allowances as an AC member. As noted by the National Commission on the Structure of the Air Force, "conducting operations with Reserve Component forces is not always less expensive than doing so with Active Component forces."⁴⁹

The AC AE is tasked with providing the Air Force's initial contingency AE response and trains regularly to deploy to any location and initiate the AE system. This is a higher level of readiness that is difficult to achieve and maintain and requires the maintenance and upkeep of unique equipment and skills, all of which are costly in time and money. For example, while the majority of AE's War Readiness Materials (WRM) is stored in a centralized location away from the squadrons, the 43rd AES is uniquely co-located with their WRM, allowing them to practice with it.⁵⁰ In addition, because of their full-time manning, they are able to maintain their WRM and stay current in its condition and functionality.⁵¹ The AC AE squadrons also receive funding to participate in multiple joint readiness exercises every year. This is a time consuming and costly training that maintains their readiness and initial entry operational skills at a level higher than that of the ARC. If the AC AE squadrons were to go away, this level of training and readiness would need to be re-located to the ARC, incurring significant costs both financially and in time and dedication; a price perhaps too steep for the majority of ARC squadrons.

A final consideration is the effect of mobilizing an ARC member on the economy. A previously mentioned study by Harvey and Ryan looked at this cost in-depth, from a socioeconomic standpoint and argued that certain social costs incurred in the use of reserve component members far exceeded the costs incurred from using the AC.⁵² These costs included loss of civilian first responders, law enforcement, and other high demand professions that are not easily replaced, such as nurses, which are already in a critical shortage.

A counter-argument by Ahmann and Carter is that the potential for a positive socioeconomic impact of the citizen soldier cannot be ignored. The RC member lives within the community, and is not geographically separated from society, as is often the case with AC members located at large bases with housing and facilities.⁵³ This provides the community

member a visible reminder of what they are funding when defense budgets are discussed, making the community member more likely to support continued or increased defense spending. In addition, most RC bases do not possess the on-base facilities that AC bases have, including commissary and bx. This means that the RC member is contributing their money to the civilian economy, as opposed to the base economy.⁵⁴

Recruitment and Retention

In the all-volunteer military, recruitment and retention are always of concern; this is true even in the ARC. Members of the reserve components join the Guard and Reserve as opposed to the AC for different reasons. Some want to choose where they live, some do not want to have to move around from assignment to assignment, and others want to choose what they do in the military. While the reasons a person joins a reserve component varies, they must be considered when proposing changes that could affect recruitment and retention within that component.

The idea of moving AE entirely to the ARC would, at first, appear to have detrimental effects on recruitment and retention. This proposed change would certainly mean increased deployments, possibly even decreased dwell to mobility ratios. The effect this change would have was researched by Doyle et al. in an Institute for Defense Analysis report.⁵⁵ What they found was recruitment for reserve components would suffer if operational demands were increased.⁵⁶ This is attributed to the fact that reserve and guard members mainly choose those components because they are not interested in serving in active duty or anything that closely approximates active duty.⁵⁷ There are some exceptions to this profile. A smaller number of individuals would choose the reserve components *because of* the increased opportunities to serve. These would be individuals that were dissuaded from the AC, not because of operational

demands, but for some other reason. When it came to retention, however, the results of increased demand were “counter-intuitive”, and demonstrated an overall increase in force strength through increased retention of what Doyle calls, “high-taste” individuals.⁵⁸ Doyle describes the “high-taste” individual as members with a “higher preference for active duty”.⁵⁹ This was the same minority that was open to ARC recruitment because of increased operational demands. Doyle’s research also demonstrated that decreased operational opportunities can have an effect on overall end-strength. “Strength is increased ...initially as the force is buoyed by a surge in new recruits, but the decline in retention drives a longer term decline in strength.”⁶⁰ Doyle warned that there could be difficulty in meeting required end-strength “if people are recruited with the expectation of frequent activation” and are instead confronted with minimal operational opportunities. This is a concern expressed by Col Thomas Hansen, 36th AES Commander. Col Hansen stated that the lower operations tempo effects his recruiting and retention negatively. “People are getting out because they are not deploying.”⁶¹ He attributed this to the recruitment of the “high-taste” individuals after Sept 11, 2001. These were people who signed up because AE was a “cool job” and because “they were going to Iraq and Afghanistan.”⁶² Now his squadron is confronted with the much more mundane yet difficult task of maintaining constant readiness with minimal operational opportunities.

Other recruitment and retention difficulties do exist. One of the most significant is in the manning of critical positions, like full-time positions at the Major Command (MAJCOM) level that are responsible for Operations, Training, and Standards and Evaluations. These are mission essential positions that are currently filled by AC personnel. Without the always available AC pool to fill from, these positions could be at the mercy of recruitment and run the risk of being left vacant. This is currently a problem at the AFRC MAJCOM, with the open position of

Command Nurse, a position that has been vacant since October. The Air National Guard Bureau also has vacancies at its AE functional positions.

While these positions could be made into deployment taskings, they are positions best served by continuity. Because of the nature of the traditional Guard and Reservist, it could be difficult to fill one to two year deployment taskings that require a move to a new location. This was a topic touched on by former AFRC Command Nurse Lt Col Kim MacPherson. While she felt some continuity was important in the MAJCOM positions, continuity that could not be achieved with the typical 4-6 month ARC deployment, she also felt that one person sitting at those positions as an indefinite hire could lead to unwanted stagnation.⁶³ Conversely, she admitted it might be difficult to find constant replacements for those positions if they were limited to 3-4 year Active Guard/Reserve (AGR) terms.⁶⁴

The AC is not without its own recruiting difficulties in AE. AE for the AC, much like the ARC, is a volunteer assignment, meaning it is at the mercy of interested applicants, and the Air Force cannot simply assign personnel to AE. In interviewing several representatives from three different AC AE squadrons, a definite shortfall within the AC AE is evident. Lt Col Frantz estimated his current manning at 70% for nurses and 80% for technicians.⁶⁵ In contrast, most of the ARC squadron commanders and representatives interviewed stated they were having little to no difficulty recruiting nurses, and only one, the 36th AES commander, admitted to having difficulty recruiting technicians, and that was due to the recent announcement that his squadron will be relocating from North Carolina.⁶⁶

Some of the recruitment difficulties faced by the AC AE are inherent in the nature of AE, including increased deployments, increased physical requirements, and the simple fact that AE can be a dangerous mission. Also, with the majority of AC nurses being young, maybe one assignment out of nursing school, and female, the high level of requirements and deployments tend to interfere with plans to get married and start a family.⁶⁷ Another unique recruiting difficulty found in the AC and not in the ARC is the competition for resources between the Air Force medical community, often referred to as SG (Surgeon General), and AE. Lt Col Frantz, who has experience in both SG and AE stated that there might be some resentment in certain SG circles, as AE extracts “a huge cost to the SG side in manpower and the ability to generate Relative Value Units (RVUs)” which are used as a measure of workload within a hospital or clinic.⁶⁸ This is a reflection of an overall shortage of nurses, medical technicians, and administrative personnel in the AC Air Force.

Mission Readiness

In the US military, the focus must always be on the mission, and anything that has the potential to affect a unit’s ability to perform the mission must be closely assessed. The move of AE to the ARC has readiness benefits and potential pitfalls. When evaluating the possible move of the entire AE enterprise to the ARC, some of the readiness indicators that must be examined include not only unit manning and shortfalls, but other readiness requirements, like the ability to deploy to a location within 72 hours of notification, and provide a self-supporting AE Operations Team, Command Cell, Liaison Teams and crews.

One advantage to readiness of the move to an all ARC AE is the potential increase in clinical skill. While the majority of AC Nurse Corps members are functioning full-time in a

clinical nurse role, the same cannot be said of the AC Nurse Corps assigned to AE. They are not attached to any Medical Treatment Facilities (MTFs) and have no nursing care in their home station responsibilities. This deficiency in clinical skills has been identified in other literature. Claravall's research in 2007 pointed out a lack of acute care and critical care experience in the AC Nurse Corps.⁶⁹ Graser et al., in a RAND study, further established a lack of training platforms to maintain clinical readiness in the AC, especially in critical care, throughout the whole of the AF Medical Service.⁷⁰ According Lt Col Frantz, Chief Nurse of the 43rd AES, approximately one third of his nurses have never been assigned to an in-patient unit in their nursing career, and, from 2007 to his arrival, there was no clinical requirements for his nurses and technicians; simply deploying and performing training missions was considered adequate practice of clinical skills.⁷¹

The use of ARC nurses leverages their employment in the civilian healthcare sector to sustain clinical skills. The ARC Nurse Corps is required to maintain an "active engagement" in nursing, defined as "employed or working voluntarily in a position that requires a registered nurse (RN)."⁷² This requirement provides a free maintenance of most basic clinical skills required to maintain the 46F Air Force Specialty Code (AFSC). Even more important are the advanced clinical skills that working in the civilian healthcare setting provide the ARC nurse. The ARC commanders interviewed all stated that the majority of their nurses were employed in Intensive Care Units, Emergency Departments and Advanced Cardiac Life Support transport services. In addition, a large amount of enlisted medical technicians in the ARC are working as paramedics, Emergency Medical Technicians, and nurses. This affords a level of clinical readiness that is difficult for the AC to match, especially in the AE career field, where the majority of time is spent focusing on operational tasks, with little to no exposure to clinical

patient care. This was a sentiment echoed not only by ARC AE commanders, but AC members as well.

The disadvantages in operational readiness for the ARC are significant, however. First, manning is always an issue. The ability of a unit to provide full manning for all of the Unit Type Codes (UTCs) that are assigned is paramount, and the ARC has a history of difficulties in maintaining manning of all of its assigned UTCs. This can be attributed to numerous causes, including poor recruitment efforts within the ARC, the significant amount of training requirements to obtain a Flight Nurse qualification, as well as the training requirements to maintain that qualification. Lt Col Bonnie Bosler, Commander of the 934th AES stated that some of her recruiting difficulties are due to insufficient recruitment efforts. She currently has one recruiter who is the health services recruiter for three other bases in the geographical area.⁷³ This means that Bosler is not only competing with the other services for candidates, she is also competing with other Air Force AE squadrons. Col Hansen has his own unique recruiting difficulties with his squadron identified as moving in the near future. Hansen is reluctant at this point to recruit enlisted airmen, as he feels that requiring them to commute would be a hardship.⁷⁴ The multiple requirements of AE make it nearly impossible to maintain manning. This was another sentiment echoed by multiple ARC representatives during interviews. Many ARC personnel find it too difficult and time consuming to stay in AE and maintain their qualifications while remaining a true traditional guard or reservist and choose to move to the non-operational side of an Air Wing, to work in a clinic or Medical Group, as the requirements of these positions are often more in line with the image of the typical reserve member.

ARC squadron commanders also reported difficulties getting funding for training, and often this results in members becoming non-current in a training item, having to pay out of

pocket for associated costs, or work “for points” only and forgo actual pay. Lt Col Sue Behrens, Commander of the 109th AES says that her Wing can only pay for one night of lodging for out of town members per UTA.⁷⁵ With most out of town members driving up the night before to be in place for a 0700 am roll-call, and then staying over Sunday night for a mandatory training flight, that means her members are paying for two nights of lodging out of their own pocket in order to perform their UTA and maintain their readiness. Lt Col MacPherson, who now serves as Director of Operations for the 34th AES states that this December her squadron had to let several members go non-current in their flight training requirements so that members who were deploying in the next few weeks could complete their flight training requirements and remain deployable.

Among the AC AE, this conflict does not exist. Lt Col Frantz stated his squadron has “no significant difficulties” maintaining readiness requirements, with seven training flights a month on average.⁷⁶ In addition, being a part of an active duty base affords AC members access to agencies that can provide readiness training multiple times. This is opposed to the typical RC stand-alone base where M-9 qualification, water survival, or Chemical, Biological, Radiological, and Nuclear (CBRN) training might only be offered every few months.

The most obvious and troubling difficulty the ARC would have in owning the AE mission would be in maintaining an ability to deploy and perform initial contingency functions within a suitable timeframe. This is a function currently maintained by the AC, and it is a costly and time consuming role. The 43rd AES goes to multiple exercises every single year to maintain its readiness, whereas an ARC squadron might go to one of these exercises every 2-3 years.⁷⁷ This role also requires a higher level of readiness, as well as the maintenance of unique

equipment and specialties, such as sophisticated communications gear and communications specialists.

The fact that Reserve and Guard members do not always live within a commuting distance establishes the point that the AC is more prepared for this quick tasking. Another consideration is the number of civilian first responders in the ARC AE. Lt Col Bosler recalls how several members of her squadron in New Jersey were unable to report to base during the initial recall following September 11, 2001, because they were firefighters, paramedics, and policemen either for New York City or other areas responding to New York to provide assistance.⁷⁸

Analysis

While the financial implications and effects on recruitment and retention appear to fall neither heavily in favor of nor against the move of AE to the ARC, mission readiness presents significant challenges that would have to be overcome to make an all-ARC AE reality. Because of these difficulties, the idea of moving the AE mission to the ARC, while plausible, is not preferable.

The financial evaluation showed that the Air Force would realize some savings, especially during low operational tempo times, as the cost of a traditional RC member is significantly less than that of an AC member. There will remain positions that have to be filled and these would be shifted to the ARC, requiring an RC member to fill them, either on Title 10 orders or as a civilian employee. With the costs of an operational ARC member, especially a deployed RC member, being the same as an AC member, if not more, there is not a significant

amount of savings in shifting these positions to the ARC.⁷⁹ In addition, some of the unique, high-readiness missions and capabilities that the AC AE currently maintains would have to be shifted to the ARC incurring additional expense.

Another financial impact that must be weighed is the economic effect of removing the reserve component member from the civilian workforce and economy. This is a trickier discussion because of the myriad of intricacies this discussion would have to consider and evaluate. AE draws the majority of its members from the healthcare sector; this includes nurses, administrators, Emergency Medical System (EMS) personnel, and nursing assistants and technicians. On the civilian side, these are high-demand, low-supply professionals, with critical shortages in some career fields. The absence of these professionals from the civilian workforce can constitute a significant economic hardship. As reservists, however, their civilian clinical experience provides the Air Force low-cost, highly trained medical clinicians. These factors, when considered together seem to make the financial implications of an all ARC AE a neutral argument.

This potential move would affect recruitment and retention both positively and negatively. Initial recruiting would be negatively affected, especially among those individuals with prior AC experience or those with a disposition for a low operations tempo military career. Doyle's study showed that retention, however, could go up, especially among those members of the ARC that choose a reserve component looking for an experience approximating that of active duty.⁸⁰ The ARC would also see an increased retention of individuals that are eager to maintain a higher operational tempo. These would be individuals who have a high interest in serving their country and would possibly even be from the same pool of candidates that the AC currently draws from. The ability to appeal to the "high-taste" individuals would be beneficial to the Air

Force, perhaps enough to outweigh the loss in recruitment. By increasing the satisfaction and overall retention of the individuals who are eager to serve, as opposed to individuals who enter the reserve component for different motives, the Air Force is left with a workforce that is more engaged and enthusiastic. These would be personnel willing to maintain the increased readiness requirements and deployment taskings that would accompany an all ARC AE. This would make the recruitment and retention criteria appear to favor the move of AE to the ARC.

The final criterion, mission readiness, presents the most significant problem to the complete movement of AE to the ARC. Two primary readiness concerns are at the forefront of this debate: the need to staff and maintain mission critical positions at the MAJCOM level, and the need to maintain a highly-ready contingency response force.

AE is a mission that requires a high level of maintenance. It is a member of the Operations Group, and it has most of the same flying requirements as any other operations squadron, including continuous training and frequent evaluations. Mission critical positions that are necessary in the successful operation of the AE enterprise include MAJCOM level Operations (A3), Training (A3T) and Standards and Evaluations (A3V). These positions ensure that the AE mission is performed effectively, all the squadrons are trained similarly, and that they all meet and maintain the same standards of performance, and they cannot be subject to the forces of a civilian labor market.

While AE is a mission that is present and needed even when the US military is at peace, it needs the ability to surge, immediately at times, when natural disasters or unforeseen conflict occurs. It is the unforeseen, short-notice, large-scale military operation response, out of the

scope of any ARC squadron's ability, that makes the AC an indispensable component of the AE enterprise.

The ability to deploy a large contingency response with operationally ready AE crews, liaison teams, and operations teams, along with their equipment, is a time consuming and expensive proposition. This mission essential task requires a higher level of readiness, an almost 100% manning, and an availability of personnel at hand. All of these requirements are difficult for a Guard or Reserve member to maintain due to the nature of the reserves.

Recommendations

While this research discounts the wholesale move of AE to the ARC, it should not be inferred that there is not a more appropriate alignment of the AC and ARC for the AE mission. Re-alignment of the ARC and the AC should be further evaluated. Questions that must be considered include: does the AC need four AE squadrons, and does the ARC need 27 squadrons? If squadrons are having trouble getting their people the operational experience they need, perhaps the AE enterprise has too many assets. This was a sentiment mentioned by many of the ARC AE representatives interviewed, and, while not a single one was in favor of eliminating the AC entirely from AE, they all mentioned that the number of AC AE squadrons should be reduced. Many suggested reducing the AC to three, some even suggested just two, with only the two squadrons outside of the continental United States (OCONUS) AC squadrons remaining.

Further research should also focus on ways to better integrate the ARC and the AC in the AE mission, in an attempt to better leverage the different advantages that each component brings to the mission. Currently, there are two AC squadrons co-located with ARC squadrons.

Additionally, the AE schoolhouse and Initial Qualification program are also located on a base with an ARC AE squadron. Unfortunately, only one of these ARC and AC locations maintain a true Total Force association. For the most part, there is no integration at all and a minimum sharing of resources among the others. The one AC/ARC Association in AE is currently at Pope AAF and is slated for re-location, which will most likely sever the association. This lack of association and integration negates the long-term experience with the AE mission that the ARC provides, as well as the civilian clinical experience of the ARC NC. The ARC/AC association could be used to assist in maintaining the AC's clinical skills. Conversely, the operational and training experience of the AC could be used to assist the ARC in maintaining operational proficiency and readiness, and the schoolhouse could offer the ARC the opportunity to practice and apply its instructional and evaluation skills.

Conclusion

AE is a force multiplier and a force extender. It allows the US military the ability to operate far beyond its support lines, and it provides a way to mitigate casualties, especially the fatalities of conflict, through the rapid and skilled transport of critically ill and injured patients. The AE mission also enables the US government to offer relief after disaster and support in times of crises. It has a strong homeland mission and a large contingency response obligation. It is a high-profile, important mission, with a lot at stake. Too much, in fact, to risk disrupting what, for the most part, appears to be working.

What is needed in the AE enterprise, at this time, is not a further separation of AC and ARC assets, but a better integration of the two components. The ARC provides AE with clinicians with strong clinical backgrounds, as well as a cost-effective way to surge in manpower

when operations tempo requires it. The AC offers AE a readily available source of manpower able to perform the myriad of day to day tasks. These are important, mission essential tasks that cannot afford to be lost or dropped because a civilian position went unfilled due to lack of candidates. Additionally, the AC provides the Air Force the highly-ready, always available AE presence for contingency cases that will invariably arise. “The asymmetrical cost advantages in the two components are reflected in the agility and responsiveness relied upon in the active component, and by the complementary depth and capacity provided by the reserve components.”⁸¹ The combination of ARC and AC assets currently serves the Air Force well, but a further integration of the two components might create a synergistic effect, where both are able to build off their distinct strengths and mitigate their individual weaknesses.

While the idea of moving the AE mission to the ARC seems to offer certain advantages, those advantages are outweighed by the significant disadvantages this move would create. For AE to be the force extender and force multiplier it is, it has to be ready, willing, and able to do a multitude of tasks and do them well, and in an expedient manner. To do that, it currently needs both components, the Active and the Reserve, as they both offer indispensable capabilities to the AE enterprise.

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